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ROUGH DRAFT

Operating Instructions

Vehicle Operation

1. Start the engine like any normal vehicle--see VW instruction manual for specific information.
2. Adjust the choke-throttle lever for a fast, smooth idle.
3. Enter the vehicle rear compartment and move the battery main switch to the 1 - 2 positions. The 1 - 2 position connects both auxiliary 12 v batteries with the 12 volt charging circuit.

Note: The battery position switch can be turned on prior to starting the vehicle engine, but this is not recommended. The initial load of both the vehicle 6 volt charging system and the auxiliary 12 volt charging system sometimes causes the generator drive-belt to slip.

4. Drive the vehicle in the same manner as any other vehicle that is heavily loaded. Use caution on all curves and hills and travel slowly over bumps and rough terrain.
5. At the end of a work period, switch the battery main-switch, located in the rear compartment, to the off position.

Caution: Never operate the vehicle engine for any length of time without a battery load in the generating system. Without a battery load, the generator will probably burn up.

Air Conditioning Operation

1. Open the over head vent in the drivers cab. This can be done by pushing the small black lever on the left side of the vent above the windshield forward toward the front of the cab. This vent will supply fresh air to the cab and air conditioning intake.
2. Place enough water in the ice chest to cover the water pump inlet screen located at the bottom of the ice chest. The water level should be about 6 - 7 inches from the bottom of the tank.
3. Place enough ice in the ice chest for the period of operation desired. Figure about 40 lbs. of crushed ice for the initial fill to bring the

CONFIDENTIAL

25X1

CONFIDENTIAL

-2-

system and vehicle to the proper temperature, plus about 40 lbs. of crushed ice for each hour of anticipated operation. For example: 8 hrs. x 40 lbs. = 320 lbs. + 40 lbs. initial = 360 lbs. of crushed ice for an 8 hour period of operation.

4. Turn on the battery main switch and the water pump switch. These switches are located in the vehicle rear compartment.
5. The water pump will run rather fast and be somewhat noisy until it primes. It may be necessary, at times, to disconnect the clear, plastic, pump discharge hose and draw a vacuum to help prime the water pump. Normally this will not be necessary.
6. Turn on the air blower switch and adjust the thermostatic temperature control, located near the doors on the compartment wall, to the desired setting. 65 F will be a normal setting.

Note: Keep smoking and noise to a minimum during periods of operation.

7. At the end of an operating period, the water pump, air blower, and battery main switches should be turned off. The ice chest should be drained by means of the hose bib and length of hose provided with the spare parts. A small amount of water, less than 1 inch, will remain in the ice chest after the chest is drained. Place several, 5 or 6, tablespoons of standard baking soda in this water to prevent odors from accumulating.
8. Check and clean or replace the filter element located behind the drivers front seat. This is the air conditioner intake.

Communications Operation

1. Turn the battery main switch located in the vehicle rear compartment to position 1 - 2. Turn the transceiver switch, located on the control head assembly near the instrument cluster, to on. Do not turn up the volume control.
2. Place the heat set (ear phone) plug in the outlet jack provided on the control head assembly. Adjust the volume control, left hand knob, and squelch control, right hand knob, until an audible background noise is obtained. Next, adjust the squelch control until the background noise just disappears. Select the proper channel by rotating the channel selector (center knob) to the indicated letter. A-B-C or D. If loud speaker operation is desired then do not plug in the head set and proceed as outlined above.

CONFIDENTIAL

CONFIDENTIAL

-3-

3. The transmitter to antenna tuning is a specialized undertaking and should be done very carefully. For final tuning of the transmitter, adjust the PA plate, the antenna tuning, and the antenna coupling as directed in the G. E. radio manual which is supplied.

Final adjustment, particularly with the luggage rack antenna, should be done using a small 6 or 12 volt light bulb attached to the antenna between the upper and lower horizontal bars. (Such a light is supplied in the spare parts). In final tuning, the following steps should be observed:

- A. Open the transceiver case enough to be able to adjust the final of the transmitter.
- B. Attach the test light to the antenna.
- C. Locate the bulb through the camera viewer and proceed to align the transmitter so as to obtain the largest amount of visible light at the test bulb.
- D. Adjust the receiver as outlined in the supplied G. E. radio manual.
- E. A 6- inch diameter hole is located in the roof near the rear compartment doors for the connection of either a front antenna or the luggage rack antenna. The front antenna lead terminates at the heater outlet in the front cab near the floor.

Day Observation

There are two day observation posts that can be utilized from the vehicle rear compartment. One is located on the front wall of the rear compartment over the ice chest. This viewer port looks into the vehicle cab allowing full view of the front of the vehicle through the windshield, and side observation of the vehicle through four strategically located mirrors. Two exterior mirrors view most of each side. The two interior mirrors view the closest front-side areas.

The rear observation port is located at the rear center of the rear compartment directly over the communications equipment. This port gives a view of the rear of the vehicle.

1. To operate the front viewer, remove the center lock pin and pull the viewer slide down. Then insert the pin in the hold-down hole.

Note: A safety interlock switch turns off the overhead light and desk lamp.

CONFIDENTIAL

CONFIDENTIAL

-4-

2. After viewing, remove the lock pin and let the viewer slide slowly return to the closed position. Replace the slide lock pin.
3. To use the rear viewer, remove the battery compartment side cover, located directly behind the control panel on the vehicle left side, by pulling the side cover forward about 6 to 8-inches. An electrical interlock will again turn off the lights.
4. Grasp the chrome handle located in the center of the viewer plug and pull the plug forward, left end first (on your right facing the vehicle rear port).
5. To reinsert the rear viewer plug, lift the storage compartment door (located on the right side of the rear compartment over the other battery) and place the viewer plug in the slot. Close the storage compartment door and slide the left battery compartment side cover back in place.
6. The camera-ventilator system located in the center of the vehicle rear compartment serves as an all around viewer with the capability of also taking pictures.

When sighting through the ventilator viewer always rotate the viewer very slowly in the same direction so as not to attract undue attention. In order to take pictures through the ventilator viewer, follow the camera instructions provided.

Night Observation

An I.R. system of night observation is provided. When not in use the I.R. assembly is normally fitted in a horizontal support along the left side of the rear compartment over the ice chest.

1. Remove the roof plug in the center of the vehicle roof just forward of the ventilator camera viewer.
2. Remove the plastic cover from the I.R. assembly and then remove the assembly from its support and place it through the hole provided in the roof. Lock it in place with the three lugs.
3. Place the electrical plug in the I.R. outlet jack located in the vehicle roof just forward of the I. R. roof hole.
4. Turn the toggle switch located at the assembly base to on. An indicating red light should glow when the I.R. is on.

CONFIDENTIAL

CONFIDENTIAL

-5-

5. The high voltage metascope is actuated by rapidly turning a hand crank located on the lower portion of the I.R. assembly. The metascope should be activated periodically during use, say every three minutes, as the charge in the scope becomes less effective from use.
6. A knob located near the top of the I.R. is used to adjust the angle of both the I.R. source and the reflecting mirror. A small black knob located at the top end of the metascope is used to focus the metascope lens for proper detail.

Battery System

The battery system is composed of two 12 volt batteries and an a.c. generator. The batteries should be checked periodically for the proper amount of distilled water in the battery cells. This level may be checked with a small dental mirror and a flashlight which are provided in the spare parts.

The generating system will require very little maintenance, other than an occasional checking of the generator belt tensioning. The generator belt is tensioned by rotating the two turnbuckle that maintain the generator belt tension so as to reduce any noticable belt flutter to a minimum.

Note: Do not over tension the belt. Compare it with a normal fan belt.

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